

Appl. No. 10/754,521
Reply to Office action of 04/20/2005

REMARKS

Reconsideration of the above-referenced application in view of the above amendment, and of the following remarks, is respectfully requested.

Claims 14-34 are pending in this case. Claim 22-24 are amended herein.

The Examiner objected to claims 22-34 as being dependent upon a rejected base claim, but that would be allowable if rewritten in independent form. Claim 22 is rewritten in independent form including all the limitations of the base claim, claim 14. There where no intervening claims. Claims 23-34 depend from amended claim 22. Accordingly, Applicant respectfully submits that claims 22-34 are now allowable.

The Examiner objected to claims 22-34 as being in improper form. Claims 23 and 24 are amended to refer to the "method" of claim 22. Claim 22 is amended to recite a series of active steps. The remaining claims are believed to be proper limitations of structures used in the active steps. Accordingly, Applicant respectfully requests that the objection be withdrawn.

The Examiner rejected claims 14-15 under 35 U.S.C. 102(e) as being anticipated by Gorin et al. (U.S. Patent 5,332,200).

Applicant respectfully submits that claim 14 is unanticipated by Gorin as there is no disclosure or suggestion in Gorin of performing a liner change from an operating heated semiconductor furnace comprising removing a heated liner from the operating heated furnace with a fixture and inserting a replacement liner into the operating heated furnace. Gorin teaches removing a replaceable liner from a furnace used in melting, casting, or annealing metals. However, there is no disclosure or suggestion in Gorin of

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removing a liner from an operating heated furnace, much less an operating heated semiconductor furnace. There is no suggestion in Gorin that its furnace is in operation and heated when the liner is removed, especially in light of the teaching with respect to the prior art that a human enters the furnace to replace prior art liners. In the prior art of semiconductor furnaces, furnaces are taken offline and cooled to room temperature before liner removal (see, Background of the Invention, page 2, lines 11-18.) Accordingly, Applicant respectfully submits that claim 14 and the claims dependent thereon are unanticipated by Gorin.

The Examiner rejected claims 16-21 under 35 U.S.C. 103(a) as being unpatentable over Gorin et al. (U.S. Patent 5,332,200).

Applicant respectfully submits that claims 16-21 are patentable over Gorin et al for the same reasons discussed above relative to claim 14 from which these claims ultimately depend.

The Examiner rejected claims 14-21 under 35 U.S.C. 103(a) as being unpatentable over Gabor et al. (U.S. Patent 5,547,512) in view of Gorin et al. (U.S. Patent 5,332,200).

Applicant respectfully submits that claim 14 is patentable over Gabor et al in view of Gorin et al as there is no disclosure or suggestion in the references of performing a liner change from an operating heated semiconductor furnace comprising removing a heated liner from the operating heated furnace with a fixture and inserting a replacement liner into the operating heated furnace. Gabor teaches using an APCVD tool to deposit barrier coatings onto fibrous materials. Gabor teaches that the APCVD tool includes a removable liner. However, Gabor fails to teach performing a liner change in an operating heated semiconductor furnace or removing the liner using a fixture. Gorin teaches removing a replaceable liner from a furnace used in melting, casting, or annealing metals. Gorin is applied to teach using a fixture to remove the liner.

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However, there is no disclosure or suggestion in the references of removing a liner from an operating heated furnace. There is no suggestion in Gorin or Gabor that the furnace is in operation and heated when the liner is removed. In the prior art of semiconductor furnaces, furnaces are taken offline and cooled to room temperature before liner removal (see, Background of the Invention, page 2, lines 11-18.) Accordingly, Applicant respectfully submits that claim 14 and the claims dependent thereon are patentable over the references.

The Examiner rejected claims 14-21 under 35 U.S.C. 103(a) as being unpatentable over Graham in view of Gorin et al. (U.S. Patent 5,332,200).

Applicant respectfully submits that claim 14 is patentable over Graham in view of Gorin et al as there is no disclosure or suggestion in the references of performing a liner change from an operating heated semiconductor furnace comprising removing a heated liner from the operating heated furnace with a fixture and inserting a replacement liner into the operating heated furnace. Graham teaches a tool for casting a metal article. Graham fails to teach performing a liner change in an operating heated semiconductor furnace or removing the liner using a fixture. Gorin teaches removing a replaceable liner from a furnace used in melting, casting, or annealing metals. Gorin is applied to teach using a fixture to remove the liner. However, there is no disclosure or suggestion in the references of removing a liner from an operating heated furnace, much less an operating heated semiconductor furnace. There is no suggestion in Gorin or Graham that the furnace is in operation and heated when the liner is removed. In the prior art of semiconductor furnaces, furnaces are taken offline and cooled to room temperature before liner removal (see, Background of the Invention, page 2, lines 11-18.) Accordingly, Applicant respectfully submits that claim 14 and the claims dependent thereon are patentable over the references.

In light of the above, Applicant respectfully requests withdrawal of the Examiner's rejections and allowance of claims 14-34. If the Examiner has any questions or other

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correspondence regarding this application, Applicant requests that the Examiner contact Applicant's attorney at the below listed telephone number and address.

Respectfully submitted,



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